Ulyssean Mathematics

Ulyssean Mathematics is a proposed mathematical framework developed by Dane Ulysse in 2025. It introduces entirely new branches of mathematics focused on multidimensional number behavior and the structure of space and time across dimensional layers. The field consists of independently constructed subfields, such as **Transdimensional Number Theory (TNT)** and **Chronotopology (CT)**, which aim to describe mathematical principles that operate beyond traditional Euclidean and non-Euclidean geometries.

Overview

Ulyssean Mathematics is defined by its central idea: that mathematical operations and properties may vary depending on the **dimensional layer** in which they occur. In contrast to conventional number systems, Ulyssean Mathematics introduces transdimensional numbers whose behavior changes across layers of reality. The field also incorporates concepts from theoretical physics and metaphysics, offering a foundation for exploring higher-dimensional interactions and structures.

Subfields

Transdimensional Number Theory (TNT)

Transdimensional Number Theory is the first subfield of Ulyssean Mathematics. It introduces transdimensional numbers and defines unique arithmetic operations based on the dimensional context. TNT establishes laws such as:

- **Dimensional Dependence Law**: Arithmetic operations have different results in different dimensions.
- **Layered Identity Law**: Identity elements change their behavior depending on the dimensional layer.
- **Dimensional Drift**: Numbers can change values as they transition across dimensions.

These rules break from classical number theory and propose a new system for modeling behaviors in multiversal and hyperdimensional spaces.

Chronotopology (CT)

Chronotopology is the second formal subfield and focuses on the topology of **space and time**. It introduces constants and functions for modeling **chronotopic elasticity** (the stretchiness of spacetime), **spatial resistance**, and **temporal viscosity**. CT aims to explain phenomena such as why multiversal travel is theoretically difficult, by suggesting that our universe has low chronotopic elasticity.

Philosophical Foundations

Ulyssean Mathematics includes a philosophical dimension, suggesting that traditional math may only describe **one layer** of a deeper multiversal structure. The framework is inspired by questions about reality, dimensional overlap, and the nature of mathematical truth in alternate or higher dimensions.

Development and Reception

Ulyssean Mathematics was developed by Dane Ulysse, an American youth prodigy, as an independent effort to expand the boundaries of mathematics and theoretical physics. The field has not yet been peer-reviewed or formally accepted by mainstream mathematical institutions but has been publicly published and shared for open academic discourse.

Publications and References

- Ulysse, Dane. *Transdimensional Number Theory: Foundations of Ulyssean Mathematics*. ViXra (2025).

- Ulysse, Dane. *Chronotopology: Mathematical Models of Space and Time in Dimensional Layers*. ViXra (2025).

See Also

- Multiverse Theory
- Dimensional Analysis
- Non-Euclidean Geometry
- Metaphysics of Mathematics